

A GREAT NATURALIST.¹

PHILIBERT COMMERSON was one of our greatest naturalists, and we cordially welcome the first life to be published in English. Until twenty-one years of age he struggled with the law, in 1848 turning to medicine, which he studied at Montpellier. In those days the whole of biology was a relatively small study, and Commerson began to be distinguished in every line in his own small university sphere. However, the influence of Linnæus turned him towards botany, the chief research in which was at that time the discovery and description of new species. He worked in the botanic gardens at Montpellier, but a jealous professor intervened, and, on the excuse that he had purloined a fruit from the gardens for his herbarium, interdicted him from entering them. He became a scientific outcast, a circumstance we cannot deplore, since it made him a wanderer, the first scientific visitor to many lands. At first, as was the way in those days, he started to form a garden, where all the species of plants of the temperate regions should be grown. He travelled widely in western Europe, and arranged exchanges of seeds and fruits with every garden of note, he himself being the proud possessor of many new plants which he had discovered. One list of his shows the trees and shrubs of south-east France, arranged in environments, almost as Schimper might have done them.

In 1767 Commerson embarked in the *Etoile*, the consort of the *Boudeuse*, de Bougainville's ship, in her famous voyage round the world. His letters on Rio de Janeiro and Buenos Ayres show considerable penetration in affairs. He collected assiduously, and near Rio obtained the Bougainvillea. In addition to botany he made many curious observations on fish, which he generally dissected. Thus, the shark is always in a state of fearful hunger owing to the large numbers of tape and other worms in its intestines. The brown coloration of the Remora on both its upper and lower surfaces is referred to its habits. His observations were practical also, those on whales leading to the subsequent establishment of the prosperous Saint Malo industry.

After the usual difficulty in passing the Straits, Bougainville's expedition sailed across the Pacific in about latitude 27° S., passing through the Paumotu Archipelago to Tahiti. From here, after a search for Terra Australis, they coasted through the Solomon Islands to the Moluccas and Batavia, where they refitted, Commerson securing numerous new fish and plants as well as the first leaf-insect. He left his companions at Mauritius with his already immense collections, remaining with Poivre, who was at that time the civil governor. He was indefatigable in collecting, his work on the Mauritius plants being the foundation of Mauritius botany. At the same time he was urging a scheme for an academy in the island which should take general cognisance of all tropical, economic, and other products. Of peculiar interest now is Commerson's suggestion to introduce frogs to clear the stagnant waters of gnat larvæ. Then followed visits to Madagascar, the collections from which fortunately found their way into

¹ "The Life of Philibert Commerson", D.M., *Naturalist du Roi: an Old-World Story of French Travel and Science in the Days of Linnæus*. By the late Captain S. Pasfield Oliver, and edited by G. F. Scott Elliott. Pp. xvii+242. (London: John Murray, 1909.) Price 10s. 6d. net.

Lamarck's capable hands, and to Réunion, where the then active volcanoes were examined. The remainder of the tale is a piteous account of jealousy at home acting to prevent Commerson's return to Europe. His constitution was already enfeebled by five years of hard and exposed work in the tropics, and he died in Mauritius in 1773. His journals, of the quality of which we can judge from his letters, freely quoted in the book before us, were never published as such, though they form a large part of Lacépède's "Histoire Naturelle," and were freely used by Cuvier, and probably Buffon.

Had Commerson lived, he would have left a name second only to that of Linnæus among eighteenth-century naturalists, for besides his vast knowledge



Louis Antoine de Bougainville. From "The Life of Philibert Commerson."

he had a rare insight into the interrelations of animals and plants in nature, and their dependence on, and adaptation to, local geological and physical conditions. He was too clearly an evolutionist, and with his vast knowledge and extraordinary personality might well have changed the history of biology by causing the acceptance of that idea even in the eighteenth century. He himself knew 25,000 plants, and supposed the world must contain 125,000; it actually is now known to have rather more than 200,000—thus being more than 110,000 nearer the number than any of his contemporaries, even the great Linnæus thinking he had completed his arch with less than 10,000.

Commerson was indeed a great man, and his life is ably and attractively pieced together by the late Capt. Oliver from evidently very fragmentary mate-

rial. We think perhaps he might have omitted many notes on the species of plants and fish, and have brought out more clearly Commerson's views on more general subjects. Indeed, undue stress is laid throughout on Commerson's qualities as a collector as compared with his qualities as a great thinker. The style and printing of the book are excellent, and the illustrations are all that could be desired. The index is very defective.

J. S. G.

AN ANGLER IN NORTH AMERICA.¹

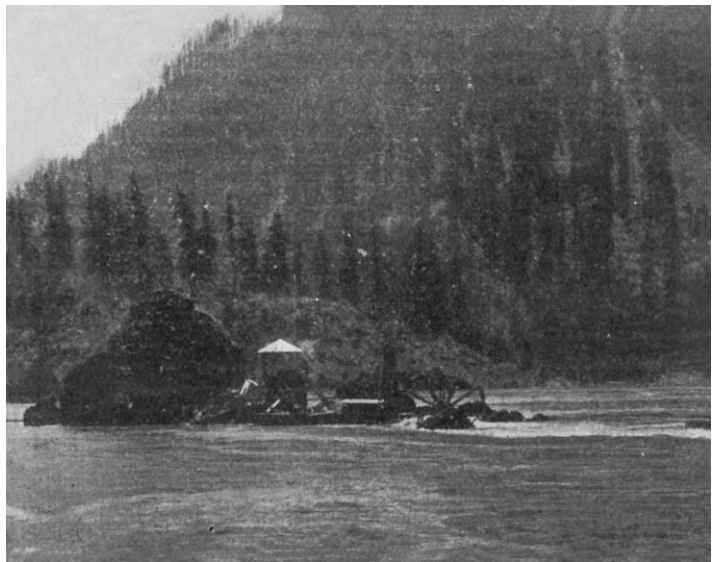
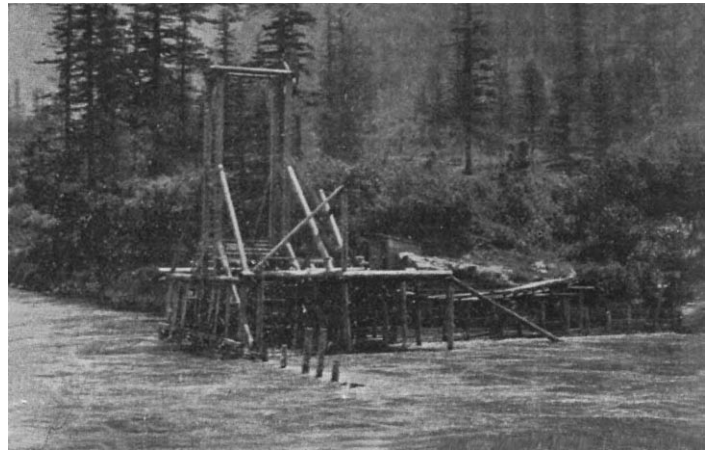
THE name of the author is a sufficient indication that this is essentially a book for the angler, and can be trusted to contain an interesting and unexaggerated record of the results attained by a master of the craft who has gained much experience in strange and distant waters. Not many anglers can afford to pursue their sport so far afloat, but most can find some touch of altruistic pleasure in the story of another's triumphs, particularly if in waters that can never come under their own rods. Mr. Aflalo, too, is always careful to describe the local conditions and cost of his operations, so that his book has not only its intrinsic interest, but will serve as a practical guide to any fisherman fortunate enough to follow him.

It was with the ambition, though hardly with the hope, of catching the enormous tuna that the author undertook the long journey to Catalina Island, off the coast of California. It is the sea-angler's Elysium, where there are glass-bottomed boats through which to view the lively sea-gardens of the placid ocean; motor-launches to take the fisherman swiftly to the choicest spots; guides who are full of humour as well as of experience; and every comfort on shore—for those who can pay. In the event, as told in chapter iii. (in which lies the central interest of the book), the tuna did not materialise, but Mr. Aflalo found consolation and daring exercise for rod and line in huge sea-bass (*Cynoscion nobilis*), yellow-tail (*Seriola dorsalis*), and albacore (*Germo alalunga*).

Not only did he thus sample "the finest sea-fishing in the world," but he had also a short experience of "the most wonderful lake-fishing on earth," on his way home by the Canadian Pacific route, in a water near Kamloops, British Columbia, where rainbow trout that "jump like tarpon" and "fight like demons" are so plentiful that the happy angler may hook "a fish of some size at every cast." Previously, the author had tried his skill on Lake Tahoe, in California, and subsequently on Lake Minnewanka, near Banff, in the latter case apparently without noteworthy result, as there is a certain vagueness here in his narrative. Finally, on reaching eastern Canada he fished Lake Broom, some eighty miles from Montreal, and had sport with black bass and pickerel.

Reminiscences of fishing, however, barely suffice to make up one-third of the book. The remainder is filled with the author's descriptions and impressions of many old familiar places, such as Barbados, Trinidad, Cartagena, Colon and the Isthmus, New Orleans,

the Pacific coast towns of the States and British Columbia, the Yosemite Valley and the big trees of Mariposa, the Columbia River, Puget Sound, the Canadian Rockies, the prairies, Niagara, and the St. Lawrence. His outlook on this panorama is that of the usual "intelligent traveller," and has little of novelty, save the touch of individuality that one may catch in every well-expressed personal narrative. He is frank in his disapproval of certain American traits that grate on most visitors brought up under different conventions. But the people of the Republic, with their still prevalent idiosyncrasy of seeking the opinion of travellers, must have become accustomed to such criticisms. Perhaps, indeed, like most young folk,



Salmon Wheels, Columbia River. From "Sunset Playgrounds," by F. G. Aflalo. By permission of Messrs. Witherby and Co.

they would rather endure some little disparagement than pass unnoticed.

The book is illustrated with numerous reproductions from photographs of the usual scenic type and of Catalina Island fish.

Is the head-line on p. 229 a feeble joke or a printer's absurd blunder? It reads, "The Side-show Girl," while the only feminine noun in the underset growl at the surroundings of Niagara Falls is *The Maid of the Mist*, and this is no girl, but the well-known old pleasure steamer.

G. W. L.

¹ "Sunset Playgrounds: Fishing Days and others in California and Canada." By F. G. Aflalo. Pp. xii+251. (London: Witherby and Co., 1909.) Price 7s. 6d. net.